

IN THE CLAIMS

1(Currently amended). An IFN- γ production inducing agent which consists essentially of an effective ingredient capable of inducing IFN- γ production by immunocompetent cells, said effective ingredient ~~consisting of~~ being an interferon-gamma (IFN- γ) production inducing protein, also known as IGIF and IL-18, having the following physicochemical properties:

(1) Molecular weight

19,000 \pm 5,000 daltons on gel filtration and sodium dodecylsulfate polyacrylamide gel electrophoresis (SDS-PAGE);

(2) Isoelectric point (pI)

4.8 \pm 1.0 on chromatofocusing; and

(3) Biological activity

Inducing the interferon- γ production by immunocompetent cells; ~~and~~

~~(4) Partial amino acid sequence~~

~~Possessing a part or the whole of the amino acid sequence of SEQ ID NO:2, wherein the Xaa in SEQ ID NO:2 is Met or Thr.~~

2(Currently amended). A pharmaceutical composition comprising a pharmaceutically-acceptable carrier and an effective ingredient capable of inducing IFN- γ production by

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immunocompetent cells, said effective ingredient ~~consisting of~~
~~being~~ an interferon-gamma (IFN- γ) production inducing protein,
also known as IGIF and IL-18, having the following
physicochemical properties:

(1) Molecular weight

19,000 \pm 5,000 daltons on gel filtration and
sodium dodecylsulfate polyacrylamide gel
electrophoresis (SDS-PAGE);

(2) Isoelectric point (pI)

4.8 \pm 1.0 on chromatofocusing; and

(3) Biological activity

Inducing the interferon- γ production by
immunocompetent cells, ~~and~~

~~(4) Partial amino acid sequence~~

~~Possessing a part or the whole of the amino
acid sequence of SEQ ID NO:2, wherein the Xaa
in SEQ ID NO:2 is Met or Thr.~~

3(Currently amended). A purified interferon-gamma
(IFN- γ) production inducing protein, which is a variant of an
interferon-gamma production inducing protein, also known as
IGIF and IL-18, and which has ~~having~~ the following
physicochemical properties:

(1) Molecular weight

19,000±5,000 daltons on gel filtration and
sodium dodecylsulfate polyacrylamide gel
electrophoresis (SDS-PAGE);

(2) Isoelectric point (pI)

4.8 ± 1.0 on chromatofocusing;

(3) Biological activity

Inducing the interferon- γ production by
immunocompetent cells; and

(4) Partial amino acid sequence

Possessing a part or the whole of the amino
acid sequence of SEQ ID NO:2, wherein the Xaa
in SEQ ID NO:2 is Met or Thr,

wherein said variant [[has]] is a sequence variant of SEQ ID NO:2 which corresponds to an [[the]] amino acid sequence of SEQ ID NO:2, which is obtainable by replacing [[with]] at least one amino acid residue in SEQ ID NO:2 replaced with a different amino acid or by deleting or adding at least one amino acid residue ~~deleted or added~~ in the N-terminal region of or to the N-terminus of SEQ ID NO:2 while not substantially altering the above physicochemical property (3) properties of the protein.

4(Previously presented). The purified protein
according to claim 3, wherein said variant has at least one

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amino acid residue in SEQ ID NO:2 replaced with a different amino acid residue.

5(Previously presented). The purified protein according to claim 3, wherein said variant has at least one amino acid residue deleted or added to the N-terminus of SEQ ID NO:2.

6(Previously presented). A pharmaceutical composition comprising a pharmaceutically-acceptable carrier and, as an active ingredient, the protein of claim 3.

7(Previously presented). A purified interferon-gamma (IFN- γ) production inducing protein, also known as IGIF and IL-18, which has the amino acid sequence of SEQ ID NO:2, where Xaa represents methionine or threonine.

8(Previously presented). An interferon-gamma (IFN- γ) production inducing agent which consists essentially of, as an effective ingredient, the protein of claim 7.

9(Original). A pharmaceutical composition comprising a pharmaceutically-acceptable carrier and, as an active ingredient, the protein of claim 7.

Claim 10 (Cancelled)

11(Currently amended). A purified interferon-gamma (IFN- γ) production inducing protein, also known as IGIF and IL-18, which has the following physicochemical properties:

(1) Molecular weight

19,000 \pm 5,000 daltons on gel filtration and sodium dodecylsulfate polyacrylamide gel electrophoresis (SDS-PAGE);

(2) Isoelectric point (pI)

4.8 \pm 1.0 on chromatofocusing;

(3) Biological activity

Inducing the interferon- γ production by immunocompetent cells; and

(4) Partial amino acid sequence

Possessing a part or the whole of the amino acid sequence of SEQ ID NO:2, wherein the Xaa in SEQ ID NO:2 is Met or Thr,

and which reacts with a monoclonal antibody specific to an interferon-gamma production inducing protein having the amino acid sequence of SEQ ID NO:2 or a sequence variant of the protein having one or more of the same antigenic fragments ~~[[of]]~~ as in the amino acid sequence of SEQ ID NO:2 ~~and an amino acid sequence of SEQ ID NO:2 with at least one amino acid residue in SEQ ID NO:2 replaced with a different amino acid, or at least one amino acid residue deleted or added to~~

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~~the N terminus of SEQ ID NO:2, while not substantially
altering the physicochemical properties of the protein.~~

Claims 12 and 13 (Cancelled)

14 (Previously presented). A purified interferon-gamma (IFN- γ) production inducing protein capable of inducing interferon-gamma (IFN- γ) production by immunocompetent cells, wherein said protein is encoded by a DNA sequence which hybridizes to an oligonucleotide probe of SEQ ID NO:5 under the hybridization conditions of 5 x SSPE, 5 x Denhardt's solution, 0.5 w/v% SDS, 100 μ g/ml denatured salmon sperm DNA, and 45°C and after being washed with 6 x SSC.

15 (Original). A pharmaceutical composition, comprising a pharmaceutically-acceptable carrier and, as an active ingredient, the protein of claim 14.

16 (New). An isolated interferon-gamma (IFN- γ) production inducing protein, also known as IGIF and IL-18, which substantially retains its interferon-gamma (IFN- γ) production inducing activity even after treatment with SDS-PAGE.

17 (New). A pharmaceutical composition, comprising a pharmaceutically-acceptable carrier and, as an active ingredient, the protein of claim 16.